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<u>Condition 3 – Table 1 (Specific Requirements)</u>

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

Reporting and Compliance Certification

a. Emission Unit 80: Boiler 80-2 (716 mmBtu/hr), Boiler 80-3 (618 mmBtu/hr), Boiler 80-4 (737 mmBtu/hr), (Emission Point 80-1)

1. [RESERVED]

- 2. Conditions Applicable to Multiple Pollutants:
- Operational Limitations: [Reference <u>APC-90/0289(A6)</u>, <u>90/0290(A10)</u> and <u>APC-90/0291</u>]
 - A. Only desulfurized refinery fuel gas (RFG) with a hydrogen sulfide content less than 0.1 grain/dscf on a 3 hour rolling average and/or natural gas may be fired in Boilers 80-2 and 80-4. Only desulfurized RFG, natural gas or syngas may be fired in Boiler 80-3 and the 3 package boilers.
 - B. [RESERVED]
 - C. [RESERVED]
 - D. [RESERVED]
 - E. Except during periods of startup and shutdown, the burner steam injection and flue gas recirculation systems in Boiler 2 shall be working in a manner consistent with maintaining 0.04 lb/MMBtu NO_X on a 24 hour rolling average.
 - F. [RESERVED]
 - G. [RESERVED]
 - H. The Owner/Operator shall not cause or allow the combustion of any fuel in Boiler 80-4 at a rate that exceeds the boiler design capacity of 737 MMBtu/hr averaged over a rolling 365 day period. [Reference 7 DE Admin. Code 1102 Section]

- ii. Compliance Method: [Reference APC-90/0289(A6), 90/0290(A10) and APC-90/0291(A3)]
 - A. Compliance with Operational Limitation

 (A) shall be based on the
 Monitoring/Testing requirements.
 - B. [RESERVED]
 - C. Compliance with Operational Limitation (D) shall be based on compliance with Condition a.5.iii.A.
 - D. Compliance with Operational Limitations (E) and (K) shall be based on maintaining the manufacturer's recommended steam injection and flue gas recirculation rates. The rates may be adjusted based on the experience of the Owner/Operator with these controls, consistent with minimizing emissions and good engineering practices.
 - E. [RESERVED]
 - F. Compliance with Operational Limitation (H) shall be based on Monitoring/Testing requirements.
 - G. Compliance with Operational Limitation (I) shall be based on the H₂S CEMS.
 - H. Comply with "Combined Limits" in Condition 3 Table 1.f.
- iii. Monitoring/Testing:

v. Reporting:

In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

- A. [RESERVED]
- B. [RESERVED]
- C. [RESERVED]
- D. [RESERVED]
- E. [RESERVED]
- F. [RESERVED]
- G. The Owner/Operator shall notify the Department in writing prior to making any material changes which cause these units to fall under the authority of Title IV of the Clean Air Act.

H. [RESERVED]

- I. The Owner/Operator shall submit the following quarterly CEMS reports by January 30, April 30, July 30 and October 30 of each calendar year:
 - 1. The H₂S CEMS reports shall include the information required by 40 CFR 60.7(c) and (d). [Reference 40 CFR 60.7(c) and (d)]
- J. Comply with "Combined Limits" in

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Emission Limitations, Emission	Compliance Determination Methodology	Reporting and Compliance Certification
Standards, Operational Limitations, and Operational Standards	(Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Comphanice Certification
I. RESERVED J. Comply with "Combined Limits" in Condition 3 - Table 1.f. K. Except during periods of startup and shutdown, the burner steam injection systems in Boiler 3 and 4 shall be working in a manner consistent with maintaining 0.16 lb/MMBtu NO _X on a 24 hour rolling average. [Reference APC-90/0290(A10), APC-90/0291 (A3))]	In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. [RESERVED] B. [RESERVED] C. [RESERVED] C. [RESERVED] F. [RESERVED] F. [RESERVED] G. The Owner/Operator shall continuously monitor and record the fuel flow rates for each boiler. [Reference 7 DE Admin Code 1130 Section 6.1.3.1.2, dated 12/11/2000] H. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H ₂ S in RFG before it is combusted in any fuel burning device. The H ₂ S monitor shall be located downstream of all process steps that increase the concentration of H ₂ S in RFG prior to its being combusted in any fuel burning device. The monitoring instrument shall conform to the QA/QC requirements in 40 CFR 60, Appendix "F." The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B." The Relative accuracy evaluations shall be conducted using Method 11 of 40 CFR Part 60, Appendix "A." [Reference APC-90/0288(A5), APC- 90/0289(A6), APC-90/0290(A5)] I. Comply with "Combined Limits" in	Condition 3 - Table 1.f. K. [RESERVED] [Reference APC-90/0288(A5), APC-90/0289 A6), APC-90/0290(A5), APC-90/0291 and APC-97/0503(A3)] vi. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Condition 3 - Table 1.f. J.The Owner/Operator shall maintain: 1. A log of all operating hours of each boiler clearly showing the hours of operation with different fuel types and the amount of each fuel consumed. 2. Rolling 24-hour heating values of the fuels combusted.	
	iv.Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00]	
	 A. The Owner/Operator shall maintain all records necessary for determining compliance with this permit in accordance with Condition 3(b). [Reference: APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5) and APC-90/0291] B. Comply with "Combined Limits" in Condition 3 - Table 1.f. 	
3. Particulate Emissions: i. Emission Standards: [Reference APC-90/0289(A6), 90/0290(A10)] and APC-90/0291(A3)] A. [RESERVED] B. PM ₁₀ emissions including H ₂ SO ₄ shall not exceed the following limits: 1. 0.0104 lb/mmBtu heat input when	iii. Compliance Method: [Reference APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] A. Compliance with PM ₁₀ Emission Standards shall be demonstrated using stack test based emissions factors and	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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<u>Condition 3 – Table 1 (Specific Requirements</u>

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
firing natural gas or refinery fuel gas in Boilers 80-2 and 80-3. 2. RESERVED. 3. RESERVED. 4. 27.8 TPY from Boiler 80-2. 5. 92 TPY from Boiler 80-3. 6. 18.2 TPY for the 3 package boilers. C. [RESERVED] D. TSP emissions shall not exceed the following limits: 1. 0.0062 lb/mmBtu heat input when firing natural gas or refinery fuel gas in Boilers 80-2 and 80-3. 2. 0.0054 lb/mmBtu heat input when firing natural gas or refinery fuel gas in each package boiler. 3. RESERVED. 4. 15.7 TPY from Boiler 80-2. 5. 13.5 TPY from Boiler 80-3. E. [RESERVED] F. [RESERVED] G. PM ₁₀ emissions from the CCUs, Boilers 1, 2, 3 and the three package boilers combined shall not exceed 311.0 TPY (inclusive of 235.4 TPY H ₂ SO ₄ mist from Boilers 1,2 & 3 and the CCUs). H. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2. (EU-80).	fuel flow rates for the boilers. B. Compliance with TSP Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the boilers. C. [RESERVED] iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall conduct the following stack tests annually, in accordance with Condition 3(b): 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM ₁₀ , including H ₂ SO ₄ . 3. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM ₁₀ performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii (EU-80). v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to	vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	

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	ompliance Determination Methodology Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
A. [RESERVED] B. The Owner/Operator shall not cause or allow the emission of SO ₂ in excess of the following limits: 1. RESERVED 2. Boiler 80-2: 71.2 TPY 3. Boiler 80-3: 61.4 TPY [Reference: APC-90/0289(A6), APC-90/0290(A5)] ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	Compliance Method: [Reference: APC-90/0289(A6), APC-90/0290(A5)] A. [RESERVED] B. Compliance with the SO ₂ Emission Standards for Boilers 80-2 and 80-3 shall be demonstrated by complying with the fuel gas monitored H ₂ S content limitations as measured by the H ₂ S Continuous Monitoring System (CMS) for Boilers 80-2 and 80-3. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall operate and maintain SO ₂ CEMS for 80-3. [Reference APC-90/0289(A6), APC-90/0290(A10)] B. The SO ₂ CEMS shall conform to Performance Specification 2 of 40 CFR 60, Appendix "B." The Quality Assurance/Quality Control (QA/QC) procedures for SO ₂ CEMS for this boiler shall be established in accordance with 40 CFR 60, Appendix "F". [Reference: APC-90/0289(A6), APC-90/0290(A10)] C. [RESERVED] D. [RESERVED] Recordkeeping: In addition to the requirements of	vi. Reporting: None in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. [RESERVED] viii. Certification Requirement: In addition to the requirements of Condition 3(c)(3) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 — Table 1.a.2.v (EU-80).

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. The Owner/Operator shall maintain SO ₂ CEMS data, calibration and audit results in accordance with Condition 3(b). [Reference APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)]	
 5. Nitrogen Oxides (NO_X): i. Emission Standards: A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NO_X)" in Part 1, Condition 3 - Table 1.j. B. [RESERVED] [RESERVED] [RESERVED] C. The NO_X emissions shall not exceed the following levels based on a 24-hour rolling average basis: RESERVED. 0.04 lb/mmBtu for Boiler 80-2. 0.16 lb/mmBTU emissions standards for Boilers 3 & 4. The lb/mmBTU emissions standards for Boilers 3 & 4 shall not apply during periods not to exceed 6 hours during each planned startup and shutdown. D. [RESERVED] 	iii. Compliance Method: [Reference: APC-90/0289(A6), APC-90/0290(A10)and APC-90/0291(A3)] A. Compliance with the NOx Emission Standards for Boiler 80-2, 3, 4 and the CCUs and the "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" shall be based on Continuous Emissions Monitoring System (CEMS) for NOx and O2. B. [RESERVED] iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The CEMS for Boilers 2, 3 and the CCUs shall conform to the applicable Performance Specifications in 40 CFR, Part 60, Appendix "B" and the QA/QC procedures for NOx CEMS shall be established in accordance with	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 — Table 1.a.2.v (EU-80). vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
E. [RESERVED] F. [RESERVED] ii. Operational Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	40 CFR 60, Appendix "F". The CEMS for Boiler 4 shall conform to the applicable Performance Specifications in 40 CFR, Part 75, Appendix "A" and the QA/QC procedures for NOx CEMS in accordance with 40 CFR 75, Appendix "B". [Reference: APC-90/0289(A6), APC-90/0290(A10 and APC-90/0291(A3)])] B. RESERVED C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. [Reference 7 DE Admin. Code 1130 Section 6.1.3.1.2 dated 12/11/2000] V. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 dated 12/11/00] B. The Owner/Operator shall maintain NOx CEMS data, calibration and audit results in accordance with Condition 3(b). [Reference: APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]	
6. Carbon Monoxide (CO): i. Emission Standards: [Reference: APC-	iii.Compliance Method: [Reference: APC-	vi. Reporting:

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Condition 3 – Table 1 (Specific Requirements)		
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
90/0289(A6). APC-90/0290(A10 and APC-90/0291(A3))) A. [RESERVED] B. The Owner/Operator shall not cause or allow the emissions of CO in excess of 0.034 lb/mmBtu from Boilers 80-2 and 80-3 on a 24 hour rolling average basis. C. The Owner/Operator shall not cause or allow the emission of CO in excess of the following limits: 1. RESERVED. 2. 106.6 TPY for Boiler 80-2. 3. 92 TPY for Boiler 80-3. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	 90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] Compliance with the CO Emission Standards shall be demonstrated by the following methods: A. [RESERVED] B. Stack test based emissions factor and fuel flow rates for Boiler 80-3. C. CEMS for Boiler 80-2. iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] A. The Owner/Operator shall conduct an annual stack test for CO using EPA Reference Method 10 and in accordance with Condition 3(b) unless the Department approves less frequent testing. B. The Owner/Operator shall operate and maintain CO CEMS for Boiler 80-2. C. The CO CEMS shall conform to the applicable Performance Specifications in 40 CFR Part 60, Appendix "B." The QA/QC procedures for the CO CEMS shall be established in accordance with the procedures in 40 CFR Part 60, Appendix "F." v. Recordkeeping: In addition to the requirements of 	That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
	In addition to the requirements of	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. For Boiler 80-2, the Owner/Operator shall maintain CO CEMS data, calibration and audit results in accordance with Condition 3(b). B. For Boilers 80-3 and 80-4, the Owner/Operator shall comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	
7. Volatile Organic Compounds (VOC):		
 i. Emission Standards: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] A. [RESERVED] B. VOC emissions shall not exceed the following limits: 1. 0.0014 lb/mmBtu when firing natural gas or refinery fuel gas in Boilers 80-2 and 80-3 and each package boiler. 2. [RESERVED] C. The Owner/Operator shall not cause or allow the emission of VOC in excess of the following limits: 1. RESERVED. 2. 4.4 TPY from Boiler 80-2. 3. 3.8 TPY from Boiler 80-3. ii. Operational Limitations: 	 iii. Compliance Method: Compliance with the VOC Emission Standards shall be demonstrated by firing only natural gas or by using stack test based emissions factors obtained while firing refinery fuel gas and refinery fuel gas flow rates for the boilers. [Reference: APC- 90/0289(A6), APC-90/0290(A10) and and APC- 90/0291(A3)] iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall conduct annually an EPA Reference Method 25 A stack test for VOC, in accordance with Condition 3(b). The Owner/Operator may petition the 	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	Department to decrease the frequency of VOC performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii (EU-80). V. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	
8. Sulfuric Acid Mist (H ₂ SO ₄):		
 i. Emission Standards: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] A. [RESERVED] B. The Owner/Operator shall not cause or allow the emission of H₂SO₄ in excess of the following limits: RESERVED. 10.9 TPY for Boiler 80-2. 71.6 TPY for Boiler 80-3. C. [RESERVED] ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - 	 iii. Compliance Method: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] A. Compliance shall be demonstrated using stack test based emissions factors and fuel flow rates for the boilers. B. [RESERVED] C. Compliance for the boiler 80-3 shall be demonstrated by applying the stack test based SO₂ to H₂SO₄ conversion factor to the CEMS-monitored SO₂ emissions. D. Compliance for Boiler 80-2 shall be demonstrated by applying the fuel gas 	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures,	Reporting and Compliance Certification
Operational Standards	and Record Keeping)	, , , , , , , , , , , , , , , , , , ,
Table 1.a.2 (EU-80).	monitored H_2S content to the H_2SO_4 conversion factor.	
	iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: A. The Owner/Operator shall conduct annually an EPA Reference Method 8 stack test for H ₂ SO ₄ , in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of H ₂ SO ₄ performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii (EU-80).	
	v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv (EU-80).	
9. [RESERVED]		
10. Visible Emissions:	I 6 1: M.I. I	
i. Emission Standard: The Owner/Operator shall not cause or	iii. Compliance Method: Compliance with the visible Emission	vi. Compliance Method: A. Comply with "Conditions Applicable to

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
allow the emission of visible air contaminants from this unit in excess of 20% opacity for an aggregate of more than 3 minutes in any 1 hour period, or more than 15 minutes in any 24 hour period. [Reference: APC-90/0289(A6). APC-90/0290(A10) and APC-90/0291(A3)] ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2 (EU-80).	Standard shall be demonstrated by a Continuous Opacity Monitoring System (COMS) for Boilers 80-2, 80-3 and 80-4 in the common stack. [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] iv. Monitoring/Testing: In addition to the requirements of Conditions 3(b)(1)(ii) of this permit, the Company shall: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-90/0291(A3)] A. The Owner/Operator shall operate and maintain a COMS for Boilers 80-2, 80-3 and 80-4 in the common stack. B. The COMS shall be maintained in accordance with Performance Specification 1 in 40 CFR 60, Appendix "B." v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. The Owner/Operator shall maintain COMS data, calibration and audit results. [Reference: APC-90/0288(A5), APC-90/0289(A6), APC-90/0290(A5)]	Multiple Pollutants" in Condition 3 - Table 1.a.2.v (EU-80). vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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<u>Condition 3 – Table 1 (Specific Requirements)</u>

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards

Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)

Reporting and Compliance Certification

11. Acid Rain Requirements for Boiler 80-4: [Reference <u>AQM-003/00016-CAIR</u>]

The following are the requirements the Owner/Operator must follow for purposes of the Acid Rain Program:

i. [RESERVED]

- A. [RESERVED]
- B. **[RESERVED]**
- ii. SO₂ Requirements:
 - A. The Owner/Operator shall:
 - 1. Hold allowances for Boiler 4, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of SO₂ for the previous calendar year from the unit, and the requirement to hold each ton of allowances constitutes a separate requirement.
 - 2. [RESERVED]
 - B. [RESERVED]
 - C. [RESERVED]
 - D. The Owner/Operator's allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
 - E. The Owner/Operator shall not deduct allowances in order to comply with the requirements under paragraph (A) above prior to the calendar year for which the allowance was allocated.

v. Compliance Method:

Compliance with the SO₂ requirements shall be based on Monitoring, Recordkeeping and Reporting Requirements.

vi. Monitoring Requirements:

- A. The Owner/Operator and, to the extent applicable, designated representative shall comply with the monitoring requirements as provided in 40 CFR Part 75.
- B. The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for SO₂ under the Acid Rain Program.

C. **[RESERVED]**

D. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of TRS in RFG before it is combusted in Boiler 4. The TRS monitor shall be located downstream of all process steps which impact the composition of RFG prior to its being combusted in Boiler 4. The TRS monitor shall conform to the QA/QC

viii. Reporting:

In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

A. The Owner/Operator's designated representative shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72 Subpart I and 40 CFR Part 75.

ix. [RESERVED]

x. [RESERVED]

xi. Certification:

In addition to the requirements of Condition 3(c)(3) of this permit, the Company shall: [Reference: 7 **DE Admin Code** 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

A. Each document required to be submitted to the Department and the Administrator pursuant to the Acid Rain provisions of this permit shall be signed and certified by the Designated Representative and shall contain the

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F. [RESERVED] G. [RESERVED] iii.[RESERVED] iv.Excess Emissions Requirements: A. The Owner/Operator's designated representative shall submit a proposed offset plan, as required under 40 CFR Part 77 if Boiler 4 has excess emissions in any calendar year. B. If Boiler 4 has excess emissions in any calendar year, the Owner/Operator shall: 1. Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and 2. Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.	requirements recommended by the manufacturer's specifications and listed in the QA/QC Plan for the TRS monitor. The TRS monitor shall conform to Performance Specification 5 of 40 CFR Part 75, Appendix "B." Relative accuracy evaluations shall be conducted using Method 15 of 40 CFR Part 75, Appendix "A." E. [RESERVED] vii. Recordkeeping: Unless otherwise provided, the Owner/Operator shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Department or the Administrator. A. The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such	"I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment."

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	documents are superseded because of the submission of a new certificate of representation changing the designated representative. B. All emissions monitoring information, in accordance with 40 CFR Part 75. C. Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program. D. Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.	
been permanently shut down.	82-2a, Gas Coolers 82-1b & 82-2b (Fugitive Emiss	sions, No Emission Points) These units have
i. Operational Limitations A. [RESERVED] B. [RESERVED]	ii. Compliance Method A. [RESERVED] B. [RESERVED] iii. Monitoring/Testing: [RESERVED] iv. Recordkeeping A. [RESERVED] B. [RESERVED] C. [RESERVED]	v. Reporting: [RESERVED] vi. Certification Requirement: [RESERVED]
2. [RESERVED]		

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The Amine Acid Gas Removal System 82-3 at 1. [RESERVED]	-Cell Linear Mechanical Draft Cooling Tower 50 (End Syngas Flare 82-4 (Emission Points 82-1and 82	-2) have been permanently shut down
i. Operational Limitations: A. [RESERVED] B. [RESERVED] C. [RESERVED] D. [RESERVED]	ii. Compliance Method: [RESERVED] iii. Monitoring/Testing: [RESERVED] iv. Recordkeeping: [RESERVED] A. [RESERVED] B. [RESERVED] 1. [RESERVED] 2. [RESERVED]	v. Reporting: [RESERVED] A. [RESERVED] B. [RESERVED] C. [RESERVED] D. [RESERVED] E. [RESERVED] vi. Certification Requirement: [RESERVED]
 2. Particulate Emissions: i. Emission Standards: [Reference APC-97/0504] A. The Owner/Operator shall not cause or allow the emission of particulate matter (PM₁₀) in excess of 6.57 TPY from cooling tower operations on a rolling 12 month basis. B. The Owner/Operator shall not cause or allow the emissions of particulate matter in excess of 0.2 grains per standard cubic foot from the cooling tower operations. [Reference 7 DE Admin Code 1105 Section 2.0, dated 02/01/1981] 	iii. Compliance Method: [Reference APC-97/0504] A. Compliance with Emission Standard (A) shall be based on Monitoring, Recordkeeping and Reporting Requirements. B. Compliance with Emission Standard (B) shall be demonstrated by installing high efficiency mist eliminators having a vendor guaranteed emission factor of 0.002 percent drift loss per pound of cooling water circulation.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1.v (EU-82). [Reference APC- 97/0504] vii. Certification Requirement: That required by Condition 3(c)(3) of this
ii. Operational Limitation:	iv.Monitoring/Testing: [Reference APC-97/0504] A. The Owner/Operator shall conduct a	permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.c.1 (EU-82).]	quarterly test of total solids using Method 2540B of Standard Methods for the Examination of Water and Wastewater. B. The Owner/Operator shall continuously monitor cooling water flow rate. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. Quarterly test results of total solids using Method 2540B of Standard Methods for the Examination of Water and Wastewater. [Reference APC-97/0504] B. Continuous cooling water flow rates. [Reference APC-97/0504]	
3. [RESERVED] i. Emission Standard: [RESERVED] ii. Operational Limitations: [RESERVED]	iii.Compliance Method: A. [RESERVED] B. [RESERVED] iv.Monitoring/Testing: A. [RESERVED] B. [RESERVED] v. Recordkeeping: A. [RESERVED] B. [RESERVED] C. [RESERVED]	vi. Reporting: [RESERVED] vii. Certification Requirement: [RESERVED]

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	D. [RESERVED] E. [RESERVED] F. [RESERVED]	
4. [RESERVED]		L
i. Emission Standard: A. [RESERVED] B. [RESERVED]	iii.Compliance Method: A. [RESERVED] B. [RESERVED]	vi. Reporting: [RESERVED] vii. Certification:
ii. Operational Limitations: [RESERVED]	iv. Monitoring/Testing: A. [RESERVED] B. [RESERVED]	[RESERVED]
	v. Recordkeeping: A. [RESERVED] B. [RESERVED] C. [RESERVED] D. [RESERVED]	
5. [RESERVED]		
i. Emission Standard: [RESERVED]ii. Operational Limitations: [RESERVED]	iii. Compliance Method: [RESERVED] iv. Monitoring/Testing: [RESERVED]	vi. Reporting: [RESERVED] vii. Certification: [RESERVED]
	v. Recordkeeping: A. [RESERVED] B. [RESERVED] C. [RESERVED]	
6. [RESERVED]	T 2	
i. Emission Standard:	iii. Compliance Method:	vi. Reporting:

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[RESERVED]	[RESERVED]	A. [RESERVED]
ii. Operational Limitations: [RESERVED]	iv. Monitoring/Testing: [RESERVED]v. Recordkeeping: A. [RESERVED]	vii. Certification: [RESERVED]
d. <u>Emission Unit 84</u>: Combined Cycle Units 841. Conditions Applicable to Multiple Pollutants:	4-1 and 84-2 (Emission Points 84-1 and 84-2)	
 i. Emission Standards: [Reference APC-97/0503(A8)] A. The Owner/Operator shall not cause or allow emissions from the CCUs that exceed the Standards of Performance for New Stationary Gas Turbines specified in 40 CFR 60 Subpart GG. [Reference 40 CFR 60 Subpart GG dated 09/10/1979 for SO2 and dated 10/17/2000 for NOx, and 7 DE Admin. Code 1120 Section 10 dated 11/27/1985] B. The Owner/Operator shall not cause or allow emissions from the duct burners that exceed the Standards of Performance for Electric Utility Steam Generating Units specified in 40 CFR 60 Subpart Db. [Reference 40 CFR 60 Subpart Db dated 10/17/2000 for SO2 and particulate matter and dated 08/14/2001 for NOx, and 7 DE Admin. Code 1120 Section 26 dated 12/07/1988] C. The Department reserves the right to establish emission limitations and/or 	iii. Compliance Method: [Reference APC-97/0503(A8)] A. Compliance with the Emission Standards (A) and (B) (NSPS limits) shall be based on the type of fuel combusted and/or compliance with the more stringent emission limits specified for individual pollutants for these units. B. Compliance with the Operational Limitations (A) and (C) (pertaining to type and amount of fuel burned) shall be based on record keeping requirements. C. [RESERVED] D. [RESERVED] E. [RESERVED] F. Comply with "Combined Limits" in Condition 3 - Table 1.f. G. Compliance with Operational Limitation I shall be based on compliance with Table 1.d.4.i.C.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. [RESERVED] B. The Owner/Operator shall notify the Department in writing prior to making any material changes which cause these units to fall under the Authority of Title IV of the Clean Air Act. [Reference APC- 97/0503 (A3)] C. Comply with "Combined Limits" in Condition 3 - Table 1.f. vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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additional controls for specific compounds based on the results of the stack tests required under the Monitoring/Testing requirements. D. Comply with "Combined Limits" in Condition 3 - Table 1.f. ii. Operational Limitations: [Reference APC-97/0503(A8)] A. [RESERVED] B. [RESERVED] C. [RESERVED] E. [RESERVED] F. [RESERVED] F. [RESERVED] H. Only NG may be fired in the combustion chambers of the CCUs. Only NG or desulfurized RFG with a hydrogen sulfide content less than 0.1 grain/dscf on a 3-hour rolling average may be fired in the DBs. I. The CCUs shall not be operated unless the LNBs are operating properly. J. [RESERVED]	H. Compliance with Operational Limitation H with respect to the H2S concentration in RFG shall be based on a continuous monitoring device. I. Compliance with Operational Limitations I and H shall be based on record keeping requirements and on information available to the Department, which may include, but is not limited to, monitoring results, opacity and process operating data. iv.Monitoring/Testing: [Reference 97/0503(A8)] A. [RESERVED] C. Comply with "Combined Limits" in Condition 3 - Table 1.f. D. Department representatives shall be given the opportunity to witness all stack test emission testing and monitor certification testing including any test audits conducted on the monitors as part of the Quality Assurance Program. E. The CEMS required by Compliance Method H shall be installed for continuously monitoring and recording the concentration (dry basis) of H2S in RFG before it is combusted in any fuel burning device. This instrument shall be located downstream of all process steps which impact the composition of RFG prior to its being combusted in	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	any fuel burning device. The instruments shall conform to the QA/QC requirements of Appendix "F" in 40 CFR Part 60	
	v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. [RESERVED] B. The following records shall be maintained in accordance with Condition 3(b): [Reference APC-97/0503(A7)] 1. Record of all operating hours of each CCU and DB. 2. [RESERVED] 3. [RESERVED] 4. [RESERVED] 5. [RESERVED] 6. [RESERVED] 7. [RESERVED] 8. Rolling 24-hour heating value of the RFG combusted. 9. All 3-hour averages of the H2S content in RFG as measured by the H2S analyzer. 10. CEMS data including calibration log and results of all Cylinder Gas Audits and all Relative Accuracy Test Audits. C. Comply with "Combined Limits" in	

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	Condition 3 - Table 1.f.	
Particulate Emissions: i. Emission Standards: [Reference APC-	iii. Compliance Method: [Reference APC-	vi. Reporting:
A. [RESERVED] B. PM ₁₀ emissions including H ₂ SO ₄ shall not exceed the following limits: 1. 0.0074 lb/mmBtu when firing natural gas in CCUs. 2. 0.0099 lb/mmBtu when firing natural gas in the CCUs and refinery fuel gas in the duct burners. 3. [RESERVED] 4. [RESERVED] 5. 67 tons per year. C. [RESERVED] D. TSP emissions shall not exceed the following limits: 1. 0.0115 lb/mmBtu when firing natural gas in CCUs. 2. 0.0112 lb/mmBtu when firing natural gas in the CCUs and refinery fuel gas in the duct burners. 3. [RESERVED] 4. [RESERVED] 5. 47.8 tons per year. E. [RESERVED]	 III. Compliance Method: *[Reference APC-97/0503(A8)]* A. Compliance with PM₁₀ Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the CCUs and duct burners. B. Compliance with TSP Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the CCUs and duct burners. C. The Owner/Operator may use stack test results obtained while the CCUs are operating with duct burners to demonstrate compliance with the respective non-duct burner emission standards for PM₁₀ and TSP by subtracting the heat input of the duct burners. iv. Monitoring/Testing: A. The Owner/Operator shall conduct the following stack tests annually, in accordance with Condition 3(b): 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM₁₀, including H₂SO₄. 	In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.vi. (EU-84). vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
ii. Operational Limitation:	<u>3</u> . If the Owner/Operator conducts	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1. (EU-84).	stack testing with the duct burners in operation, the Owner/Operator shall calculate the emission rate for operation without duct burner operation by subtracting the heat input contributed by the duct burners. 4. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM ₁₀ performance tests based on the results of any performance testing. B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.iv (EU-84). v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00 A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	
3. [RESERVED] 4. Nitrogen Oxides (NO _X):		
 i. Emission Standards [Reference APC-97/0503(A8)] A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1, Condition 3 - Table 1.j. B. [RESERVED] 	iii. Compliance Method: [Reference APC- 97/0503(A8)] A. Compliance with the "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" and with the NOx Emission	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections

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C. The NO _x emissions from each CCU shall not exceed the following levels on an hourly basis: 1. 15 ppmvd @ 15% O ₂ when CCU burns NG without duct firing. 2. 18 ppmvd @ 15% O ₂ when CCU burns NG with duct firing. 3. [RESERVED] 4. [RESERVED] D. The NO _x emission rates from the CCUs shall not exceed 390 ppmvd @ 15% O ₂ during startups and, shutdowns of the Combustion Turbines and/or duct burners. Such periods shall not exceed 2 hours in duration. E. [RESERVED] F. [RESERVED] ii. Operational Limitations: A. [RESERVED] B. [RESERVED]	Standards shall be based on Continuous Emissions Monitoring System (CEMS) for NOx and O2. B. Compliance with the Operational Limitations shall be based on Recordkeeping requirements. iv.Monitoring/Testing: [Reference APC-97/0503(A8)] A. The Owner/Operator shall operate and maintain NOx and O2 CEMS for the CCUs. B. The Quality Assurance/Quality Control (QA/QC) procedures for NOx CEMS shall be established in accordance with 40 CFR Part 60, Appendix "F". C. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" Part 1, in Condition 3 - Table 1.j. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.1 dated 12/11/00] v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. The Owner/Operator shall keep NOx CEMS data calibration and audit results in accordance with Condition 3(b). [Reference APC-97/0503 (A3)] B. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part	6.1.3.2.3 and 6.2.1 dated 12/11/00] A. [RESERVED] vii. Certification Requirement: In addition to the requirements of Condition 3(c)(3) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 — Table 1.a.2.v (EU-80).

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	1, Condition 3 - Table 1.j. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2 dated 12/11/00]	
5. Carbon Monoxide (CO):		
i. Emission Limitations: [Reference APC-97/0503(A8)] A. [RESERVED] B. CO emissions on an hourly basis shall not exceed the following limits: 1. 0.0202 lb/mmBtu when firing natural gas in CCUs. 2. 0.0261 lb/mmBtu when firing NG in the CCUs and refinery fuel gas in the duct burners. 3. [RESERVED] 4. [RESERVED] 5. 110.9 tons per year C. The above limits shall not apply during periods of startup and shutdown of the combustion turnbines and/or duct burners. Such periods shall not exceed 2 hours in duration. The Owner/Operator shall follow good air pollution control practices to minimize CO emissions during these periods.	iii. Compliance Method: [Reference APC-97/0503(A8)] Compliance with the CO Emission Standards shall be based on the following methods: A. CEMs for the CCUs. B. [RESERVED] C. [RESERVED] iv. Monitoring/Testing: [Reference APC-97/0503(A8)] A. The Owner/Operator shall operate and maintain CO CEMS for the CCUs. B. [RESERVED] C. The CO CEMS shall satisfy the applicable Performance Specifications in 40 CFR part 60, Appendix "B." The QA/QC procedures for the CO CEMS shall be established in accordance with the procedures in 40 CFR Part 60 Appendix "F."	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.vi (EU-84). vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
 ii. Operational Limitations: [Reference APC-97/0503 (A8)] Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84). 6. Volatile Organic Compounds (VOC): 	v. Recordkeeping: The Owner/Operator shall maintain CO CEMS data, calibration and audit results in accordance with Condition 3(b).	

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i. Emission Standards: [Reference APC-97/0503(A8)] A. [RESERVED] B. VOC as measured by the average of the three stack test runs pursuant to the stack tests: 1. 0.0021 lb/mmBtu when firing natural gas in CCUs. 2. 0.0046 lb/mmBtu when firing natural gas in the CCUs and refinery fuel gas in the duct burners. 3. [RESERVED] 4. [RESERVED] 5. 19.8 tons per year. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1 (EU-84).	iii. Compliance Method: [Reference APC-97/0503(A8)] A. Compliance with the VOC Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the CCUs and duct burners. B. The Owner/Operator may use stack test results obtained while the CCUs are operating with duct burners to demonstrate compliance with the respective non-duct burner emission standards for VOC by subtracting the heat input of the duct burners. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25A stack test for VOC, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. B. If the Owner/Operator conducts stack testing with the duct burners in operation, the Owner/Operator shall calculate the emission rate for operation without duct burner operation by subtracting the heat input contributed by the duct burners. C. Comply with "Conditions Applicable to	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi (EU-84). vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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	Multiple Pollutants" in Condition 3 - Table 1.d.1.iv (EU-84). v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	
7. [RESERVED]		
8. [RESERVED]		
 i. Emission Standard: The Owner/Operator shall not cause or allow the emission of visible air contaminants from the CCUs in excess of 20% opacity for an aggregate of more than 3 minutes in any 1 hour period, or more than 15 minutes in any 24 hour period. [Reference APC-97/0503(A8)] ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1 (EU-84). 	iii. Compliance Method: [Reference APC-97/0503 (A8)] Compliance with the visible Emission Standard shall be based on Monitoring/Testing requirements and on information available to the Department which may include, but is not limited to, monitoring results, opacity and process operating data. iv. Monitoring/Testing: A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the units are in operation. B. If visible emissions are observed, the Company shall take corrective actions and/or conduct a visible observation in accordance with paragraph D below. C. If no visible emissions are observed, no	vi. Reporting: None in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. [RESERVED] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	further action is required. D. If required by paragraph B above, the Company shall, in accordance with subsection 1.5(c) of 7 DE Admin. Code 1120, conduct visible observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualifications and testing to be used for visually determining the opacity shall be those specified in Section 2 and 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A of 40 CFR Part 60, revised July 1, 1982. V. Recordkeeping: In addition to complying with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84), the Owner/Operator shall keep a log of daily qualitative stack observations for each CCU.	
10. Sulfuric Acid Mist (H ₂ SO ₄)	:: Campliana Malhada	Donastin o
i. Emission Limitation: H ₂ SO ₄ as measured by the average of the three stack test runs shall not exceed 3.1 tons per year. [Reference APC-97/0503(A8)]	 ii. Compliance Method: [Reference APC-97/0503 (A8)] A. Compliance with the H₂SO₄ Emission Standards shall be demonstrated using stack test based emissions factors and 	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	fuel flow rates for the CCUs and duct burners. B. The Owner/Operator may use stack test results obtained while the CCUs are operating with duct burners to demonstrate compliance with the respective non-duct burner emission standards for H ₂ SO ₄ by subtracting the heat input of the duct burners. iii. Monitoring/Testing: A. The Owner/Operator shall conduct	6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi (EU-84). vi.Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
	annually an EPA Reference Method 8 stack test for H ₂ SO ₄ , in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of H ₂ SO ₄ performance tests based on the results of any performance testing. B. If the Owner/Operator conducts stack testing with the duct burners in operation, the Owner/Operator shall calculate the emission rate for operation without duct burner operation by subtracting the heat input contributed by the duct burners.	
	iv.Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84).	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
i. Emission Limitation: Lead emissions shall not exceed 0.004 tons per year. [Reference APC-97/0503(A8)]	 ii. Compliance Method: [Reference APC-97/0503 (A8)] Compliance with the Pb Emission Standards shall be based on firing only natural gas in the CCUs and either natural gas or desulfurized refinery fuel gas in the duct burners. iii. Monitoring/Testing None in addition to Condition 3.b of this permit. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v. (EU-84). 	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi. (EU-84). vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
i. Emission Limitation: SO ₂ emissions shall not exceed 36.5 tons per year. [Reference APC-97/0503(A8)]	 ii. Compliance Method: [Reference APC-97/0503(A8)] Compliance shall be based on firing only NG in the CCUs and either NG or desulfurized RFG in the DBs. iii. Monitoring/Testing None in addition to Condition 3.b of this permit. iv. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.d.1.v (EU-84). 	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.d.1.vi (EU-84). vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
		12/11/00]
e. Facility-Wide: See Part 2, Condition 3 – Ta	able 1.ob.	
1. Conditions applicable to Multiple Pollutants:	RESERVED]	
i. Operational Limitations:A. [RESERVED]B. [RESERVED]	ii. Compliance Method: [RESERVED]	v. Reporting Requirement: [RESERVED]
b. [RESERVED]	iii. Monitoring & Testing: [RESERVED]	vi.Certification Requirement: [RESERVED]
	iv.Recordkeeping: [RESERVED]	
2. Odor: [RESERVED]	L	
i. Emission Standard: [RESERVED]	iii.Compliance Method: [RESERVED]	vi. Reporting Requirement: [RESERVED]
ii. Operational Limitations: [RESERVED]	iv.Monitoring & Testing: [RESERVED]	vii. Certification Requirement: [RESERVED]
	v. Recordkeeping: [RESERVED]	
3. Visible Emissions:[RESERVED]		
i. Emission Standard: [RESERVED]	iii.Compliance Method: [RESERVED]	vi. Reporting: [RESERVED]
ii. Operational Limitations: [RESERVED]	iv.Monitoring/Testing: A. [RESERVED] B. [RESERVED] 1. [RESERVED] 2. [RESERVED]	vii. Certification: [RESERVED]

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<u>Condition 3 – Table 1 (Specific Requirements)</u>		
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Operational Standards	and Record Keeping) 3. [RESERVED] v. Recordkeeping: [RESERVED] iditions are applicable to multiple emission units a ii. Compliance Method: [Reference APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)] A. [RESERVED] B. Compliance with Operational Limitation (C) shall be based on recordkeeping. iii. Monitoring/Testing: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)] A. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of TRS in syngas before it is combusted in any fuel burning device. The TRS monitor shall be located	
	downstream of all process steps which impact the composition of syngas prior to its being combusted in any fuel burning device. The TRS monitor shall conform to the QA/QC requirements recommended by the manufacturer's specifications and listed in the QA/QC Plan for the TRS monitor. The TRS monitor shall conform to Performance Specification 5 of 40 CFR Part 60, Appendix "B." Relative accuracy	2. The NO _X and CO CEMS and COMS reports for CEMS required for the Boilers and CCUs shall include the following: a. Excess emissions and the nature and cause of the excess emissions, if known. The summary shall consist of emission averages, in the units of the applicable standard, for each averaging period during

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	evaluations shall be conducted using Method 15 of 40 CFR Part 60, Appendix "A." [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)] B. [RESERVED] iv.Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Section 6.1.3.1.2 and 6.2.1 dated 12/11/00] A. Records shall be maintained of all 24-hour rolling and 12-month rolling averages of sulfur content in clean syngas as measured by the TRS analyzer. [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)]	which the applicable standard was exceeded. b. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments. c. When no excess emissions have occurred and the CEMS have not been inoperative, repaired, or adjusted, such information shall be included in the report. [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)]
2. Particulate Emissions:		
 i. Emission Standards: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] A. The Owner/Operator shall not cause or allow the emission of particulate matter (PM10) in excess of 311 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-2 and 80-3, and the package boilers combined (inclusive of H₂SO₄ mist) on a rolling twelve (12) month basis. B. The Owner/Operator shall not cause or allow the emission of total suspended 	iii. Compliance Method [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] A. Compliance with PM10 Emission Standards shall be demonstrated by firing only natural gas or by using stack test based emissions factors and fuel flow rates for the CCUs, duct burners and boilers. B. Compliance with TSP Emission Standards shall be demonstrated by firing only natural gas or by using using stack test based emissions	 vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification Requirement: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
particulate (TSP) in excess of 78.7 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-2 and 80-3, and the package boilers combined. C. The Owner/Operator shall not cause or allow the emission of particulate matter in excess of 0.3 lb/mmBtu, maximum two (2) hour average, from any fuel burning equipment. [Reference 7 DE Admin Code 1104 Section 2.1, dated 2/1/1981] ii. Operational Limitation: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.a.2.	factors and fuel flow rates for the CCUs, duct burners and boilers. iv.Monitoring/Testing: A. The Owner/Operator shall conduct the following stack tests annually, in accordance with Condition 3(b): 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM10, including H2SO4. 3. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM10 performance tests based on the results of any performance testing. 4. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. [Reference: APC-90/0289(AT), APC-90/0290(A10), APC-97/0503(A8) and APC-2009/0089(A1)] B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. v. Recordkeeping:	1.a.2.v.
	Comply with "Conditions Applicable to	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
3. Sulfur Dioxide (SO ₂): i. Emission Standards: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] A. The Owner/Operator shall not cause or allow the emission of SO ₂ in excess of	Multiple Pollutants" in Condition 3 - Table 1.a.2.iv. iii. Compliance Method: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] Compliance with the SO ₂ Emission Standards shall be based on the H ₂ S	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
allow the emission of SO ₂ in excess of 306.4 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-2 and 80-3, and the package boilers combined. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3, Condition 3 - Table 1.a.2.	Continuous Monitoring System (CMS) for Boilers 80-2, 80-3 and the duct burners of the CCUs. The CEMS shall conform to Performance Specification 2 in 40 CFR Part 60, Appendix "B" and the QA/QC procedures in accordance with 40 CFR Part 60, Appendix "F". iv. Monitoring/Testing: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)] A. The Owner/Operator shall operate and maintain H ₂ S CMS for Boilers 80-2 and 80-3. B. [RESERVED] v. Recordkeeping: [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)]	
	A. The Owner/Operator shall maintain SO2 CEMS data, calibration and audit results in accordance with Condition 3(b).	

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<u>Condition 3 – Table 1 (Specific Requirements)</u>					
Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification			
5. Carbon Monoxide (CO):					
 i. Emission Standards: [Reference: APC-90/0289(A6), APC-90/0290(A10-5) and APC-97/0503(A8)] A. The Owner/Operator shall not cause or allow the emission of CO in excess of 470.2 TPY from the CCUs (Emission Units 84-1 and 84-2), 80-2 and 80-3, and the package boilers combined on a rolling twelve (12) month basis. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 1, Condition 3 - Table 1.a.2. 	 iii. Compliance Method: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] Compliance with the CO Emission Standards shall be demonstrated by the following methods: A. Stack test based emissions factor and fuel flow rates for Boilers 80-3 and the package boilers. B. CEMS for Boiler 80-2 and the CCUs. iv. Monitoring/Testing: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] A. The Owner/Operator shall operate and maintain CO CEMS for Boiler 80-2 and the CCUs. B. The QA/QC procedures for the CO CEMS shall be established in accordance with the procedures in 40 CFR Part 60, Appendix "F." C. For Boilers 80-3 and the package boilers, the Owner/Operator shall conduct annually an EPA Reference Method 10 stack test for CO. The Owner/Operator may petition the Department to decrease the frequency of CO performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire 	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification Requirement: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]			

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. v. Recordkeeping: A. For Boiler 80-2 and the CCUs, the Owner/Operator shall maintain CO CEMS data, calibration and audit results in accordance with Condition 3(b). B. For Boilers and 80-3 the Owner/Operator shall comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	
 i. Emission Standard: A. The Owner/Operator shall not cause or allow the emission of VOC in excess of 22.7 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-2 and 80-3, and the package boilers combined on a rolling twelve (12) month basis. [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)] ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2. 	iii. Compliance Method: Compliance with the VOC Emission Standards shall be demonstrated by firing only natural gas or by using stack test based emissions factors and fuel flow rates for the boilers and CCUs. [Reference: APC- 90/0289(A6), APC-90/0290(A10) and APC- 97/0503(A8)] iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25A stack test for VOC, in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of VOC	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii) and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. [Reference: APC-90/0289 (A7), APC-90/0290 (A10), APC-97/0503 (A8) and APC-2009/0089 (A1)] B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	
7. Sulfuric Acid Mist (H ₂ SO ₄):		
 i. Emission Standards: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] A. The Owner/Operator shall not cause or allow the emission of H₂SO₄ in excess of 235.4 TPY from the CCUs (Emission Units 84-1 and 84-2), Boilers 80-2 and 80-3, and the package boilers combined on a rolling twelve (12) month basis. ii. Operational Limitations: 	 iii. Compliance Method: [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] A. Compliance with the H₂SO₄ Emission Standards shall be demonstrated using stack test based emissions factors and fuel flow rates for the boilers and CCUs. B. Compliance for the boiler 80-3 and the CCUs shall be demonstrated by applying the stack test based SO₂ to H₂SO₄ conversion factor to the CEMS- 	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification: That required by Condition 2(c)(2) of this
Comply with "Conditions Applicable to	monitored SO_2 emissions.	That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
Multiple Pollutants" in Condition 3 - Table 1.a.2.	C. Compliance for the Boiler80-2 shall be demonstrated by applying the fuel gas monitored H ₂ S content to the H ₂ SO ₄ conversion factor.	Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
	iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 8 stack test for H ₂ SO ₄ , in accordance with Condition 3(b). The Owner/Operator may petition the Department to decrease the frequency of H ₂ SO ₄ performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. [Reference: APC-90/0289 (A7), APC-90/0290 (A10), APC-97/0503 (A8) and APC-2009/0089 (A1)] B. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iii. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table	
8. Lead (Pb):	1.a.2.iv.	

Permit: <u>AQM-003/00016 - Part 3 (Renewal 2)(Revision 1)</u> – Draft/Proposed **Delaware City Refining Company**

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<u>condition 5 – rable 1 (Specific Reguli ements)</u>	Condition 3 – Table 1	. (S	pecific Red	uirements)
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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
 i. Emission Standard: A. The Owner/Operator shall not cause or allow the emission of Pb in excess of 0.02 TPY from the CCUs (Emission Units 84-1 and 84-2) and Boilers 80-2 and 80-3 combined on a rolling twelve (12) month basis. [Reference: APC-90/0289(A6), APC-90/0290(A10)] and APC-97/0503(A8)] ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2. 	iii. Compliance Method: Compliance with the Pb Emission Standard shall be demonstrated by firing desulfurized fuel gas or clean syngas in the boilers and either clean syngas or LSDF in the CCUs and natural gas in the duct burners. [Reference: APC-90/0289(A6), APC-90/0290(A10) and APC-97/0503(A8)] iv. Monitoring/Testing: A. [RESERVED] B. None in addition to Condition 3.b of this permit. v. Recordkeeping: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.iv.	vi. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Company shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.a.2.v. vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
 9. Carbon Dioxide (CO₂): State Enforceable On i. Operational Limitation: A. The owners and operators of each CO2 budget source and each CO2 budget unit, at the source shall hold CO2 allowances available for compliance deductions under 7 DE Admin. Code 1147, Section 6.5, as of the CO2 allowance transfer deadline, in the source's compliance account in an amount not less than the total CO2 emissions associated with gross generation output to the grid for the control period from all CO2 budget units at the source, as determined 	iii. Compliance Methodology: : [Reference APC-90/0289 (A10), APC-90/0290 (A11), APC-90/0291 (A4) and APC-97/0503 (A9)] A. Compliance with Operational Limitation A shall be based on the calculation methodology described in Section 3 of DCRC's application and Attachment "H" of this permit which shall be used to determine CO2 emissions from DCRC's affected units using the natural gas consumption, electrical generation, and steam production from each CCU to calculate the rolling daily average heat	vi. Reporting: That required by Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] [Reference: APC-90/0289 (A10), APC-90/0290 (A11), APC-90/0291 (A4) and APC-97/0503 (A9)] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
in accordance with 7 DE Admin. Code 1147, Section 6.0 and 8.0 B. Each ton of CO2 emitted in excess of the CO2 budget emissions limitation shall constitute a separate violation of 7 DE Admin. Code 1147 and applicable state law. C. The requirements of 7 DE Admin. Code 1147, Section 1.2.3.1 shall become effective as of January 1, 2013. D. CO2 allowances shall be held in, deducted from, or transferred among CO2 Allowance Tracking System accounts in accordance with 7 DE Admin. Code 1147, Sections 5.0, 6.0, 7.0 and 10.7. E. A CO2 allowance shall not be deducted, in order to comply with the requirements under 7 DE Admin. Code 1147, Section 1.5.3.1 of, for a control period that ends prior to the year for which the CO2 allowance was allocated. A CO2 offset allowance shall not be deducted, in order to comply with the requirements under 7 DE Admin. Code 1147, Section 1.5.3.1, beyond the applicable percent limitations set out in V, Section 6.5.1.3. F. A CO2 allowance under the CO2 Budget Trading Program is a limited authorization by the Department or a participating state to emit one ton of CO2 in accordance with the CO2 Budget Trading Program. No provision of the CO2 Budget Trading	input for the allocation year. During periods of power balance when the CCUs are exporting power, the rolling daily heat rate shall be used to determine the amount of CO2 allowances required for each CO2 budget unit (CCU 1 and CCU 2) for each allocation year. During periods of power imbalance, when some generation from the TGs may be exported, the conservative default heat rate of 10,000 Btu/kWh shall be used to determine the amount of CO2 allowances required for power exported during that period. B. Compliance with Operational Limitations B through H shall be based on the monitoring and recordkeeping requirements of this permit. iv. Monitoring/Testing: [Reference, APC-90/0289 (A10), APC-90/0290 (A11), APC-90/0291 (A4) and APC-97/0503 (A9)] v. The Company shall monitor the following parameters as described in Attachment "H" of this permit: A. Daily overall power flow through the 13825 Power Line and Transformers AT1 and T6A in kWh, measured and reconciled daily. vi. B. Calculated daily average heat rate in BTU/kWh. The Company shall monitor the following	

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Program, the CO2 budget permit application, or the CO2 budget permit or any provision of law shall be construed to limit the authority of the Department or a participating state to terminate or limit such authorization. G. A CO2 allowance under the CO2 Budget Trading Program does not constitute a property right. H. Excess emissions requirements: The owners and operators of a CO2 budget source that has excess emissions in any control period shall: 1. Forfeit the CO2 allowances required for deduction under 6.5.4.1 of this regulation, provided CO2 offset allowances may not be used to cover any part of such excess emissions; and 2. Pay any fine, penalty, or assessment or comply with any other remedy imposed under 7 DE Admin. Code 1147, Section 6.5.4.2. For puposes of the above condition, A CO2 Budget Source/affected unit shall mean Boiler 1, Boiler 2, Boiler 3, Boiler 4, CCU 1 or CCU 2. [Reference:APC-90/0289 (A10), APC-90/0290 (A11), APC-90/0291 (A4) and APC-97/0503 (A9)] ii. Administrative Requirements: [Reference APC-90/0288 (A10), APC-90/0291 (A4) and APC-97/0503 (A9)]	The Company shall monitor the following parameters as described in Attachment "H" of this permit: A. Daily overall power flow through the 13825 Power Line and Transformers AT1 and T6A in kWh, measured and reconciled daily. B. Calculated daily average heat rate in BTU/kWh. vii. Recordkeeping: The company shall maintain following records Unless otherwise provided, the owners and operators of the CO2 budget source and each CO2 budget unit at the source shall keep on site at the source each of the following documents for a period of 10 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 10 years, in writing by the Department. 1. The account certificate of representation for the CO2 authorized account representative for the source and each CO2 budget unit at the source and all documents that demonstrate the truth of the statements in the account certificate	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
The Company shall comply with the following administrative requirements: A. These permits shall be made available on the premises. B. Liability 1. No permit revision shall excuse any violation of the requirements of the CO2 Budget Trading Program that occurs prior to the date that the revision takes effect. 2. Any provision of the CO2 Budget Trading Program that applies to a CO2 budget source (including a provision applicable to the CO2 authorized account representative of a CO2 budget source) shall also apply to the owners and operators of such source and of the CO2 budget units at the source. 3. Any provision of the CO2 Budget Trading Program that applies to a CO2 budget unit (including a provision applicable to the CO2 authorized account representative of a CO2 budget unit) shall also apply to the owners and operators of such unit. C. Effect on other authorities: 1. No provision of the CO2 Budget Trading Program, a CO2 budget permit application, or a CO2 budget permit, shall be construed as exempting or	of representation, in accordance with 2.4 of this regulation, provided that the certificate and documents shall be retained on site at the source beyond such 10-year period until such documents are superseded because of the submission of a new account certificate of representation changing the CO2 authorized account representative. 2. All emissions monitoring information, in accordance with 7 DE Admin. Code 1147, Section 8.0 and 40 CFR 75.57. 3. Copies of all reports, compliance certifications, and other submissions and all records made or required under the CO2 Budget Trading Program. 4. Copies of all documents used to complete a CO2 budget permit application and any other submission under the CO2 Budget Trading Program or to demonstrate compliance with the requirements of the CO2 Budget Trading Program. B. The CO2 authorized account representative of a CO2 budget source and each CO2 budget unit at the	
excluding the owners and operators and, to the extent applicable, the CO2	source shall submit the reports and compliance certifications required	

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authorized account representative of a CO2 budget source or CO2 budget unit from compliance with any other provisions of applicable State and federal law and regulations. D. Failure to comply with the provisions of these permits may be grounds for suspension or revocation. C.	under the CO2 Budget Trading Program, including those under 4.0 of this regulation. C. [Reference APC-90/0289 (A10), APC-90/0290(A11), APC-90/0291(A4) and APC-97/0503(A9)]	
g. Package Bollers: 3 Package Bollers 45-B-1 fuel gas fired) (Emission Points 45-150, 45-3 3. Conditions Applicable to Multiple Pollutants: i. Operational Limitations: [Reference APC-2009/0089(A1)] A. Only desulfurized refinery fuel gas (RFG) with a hydrogen sulfide content less than 0.1 grain/dscf on a 3 hour rolling average basis and/or natural gas may be fired in the package boilers. B. The heat input to each package boiler shall not exceed 99.99 MMBtu/hr on a 24-hour rolling average basis.	 ii. Compliance Method: A. Compliance with Operational Limitations (A) shall be based on recordkeeping. B. Compliance with Operational Limitation (B) shall be based on the H₂S CEMS. iii. Monitoring/Testing: A. The Owner/Operator shall continuously monitor and record the fuel flow rates for each package boiler. [Reference APC-2009/0089(A1)] B. The Owner/Operator shall continuously monitor and record the concentration (dry basis) of H₂S in RFG before it is 	v. Reporting: In addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit, the Owner/Operator shall: [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] A. Report to the Department within 14 days when any package boiler first fires refinery fuel gas. [Reference APC- 2009/0089(A1)] vii. Certification: That required by Condition 3(c)(3) of this
	combusted in any fuel burning device. The H ₂ S monitor shall be located downstream of all process steps that increase the concentration of H ₂ S in	permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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	RFG prior to its being combusted in any fuel burning device. The monitoring instrument shall conform to the QA/QC requirements in 40 CFR 60, Appendix "F." The monitoring instrument shall conform to the requirements of Performance Specification 7 of 40 CFR 60, Appendix "B." The Relative accuracy evaluations shall be conducted using Method 11 of 40 CFR Part 60, Appendix "A."	
2. Particulate Emissions:	 iv. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: [Reference APC-2009/0089(A1)] A. Maintain records of all operating hours for each boiler clearly showing the hours of operation with different fuel types, i.e. hours of operation with natural gas, refinery fuel gas, and the amount of each fuel type consumed. B. Maintain records of the rolling 24-hour heating values of the fuels combusted. 	
 i. Emission Standards: [Reference APC-2009/0089(A1)] A. PM₁₀ emissions from the package boilers shall not exceed 18.2 TPY. B. PM₁₀ emissions shall not exceed 0.0104 lb/MMBtu from each package boiler. 	iii. Compliance Method: [Reference APC-2009/0089(A1)] A. Compliance with the Particulate Emission Standards shall be demonstrated by firing only natural gas or by using annual stack test based	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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C. TSP emissions from the package boilers shall not exceed 9.5 TPY. D. TSP emissions shall not exceed 0.0054 lb/MMBtu from each package boiler. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i.	emission factors obtained while firing refinery fuel gas and refinery fuel gas flow rates for the package boilers. iv. Monitoring/Testing: A. The Owner/Operator shall conduct the following stack tests annually in accordance with Condition 3(b): [Reference APC-2009/0089 (A1)] 1. EPA Reference Method 5 for TSP. 2. EPA Reference Method 5B/202 for PM10, including H2SO4. 3. The Owner/Operator may petition the Department to decrease the frequency of TSP or PM10 performance tests based on the results of any performance testing. 4. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this	vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
	permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 -	

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Table 1.g.1.iv.	
 3. Sulfur Dioxide (SO₂): i. Emission Standards: [Reference APC-2009/0089(A1)] A. SO₂ emissions from the package boilers shall not exceed 39.4 TPY. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.i. 	 iii. Compliance Method: A. Compliance with the Emission Standard shall be based on recordkeeping. iv. Monitoring/Testing: None specified. v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Condition 3 - Table 1.g.1.iv. 	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
4. Nitrogen Oxides (NO _x):		
 i. Emission Standards: [Reference APC-2009/0089(A1)] A. Comply with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1 Condition 3 - Table 1.j. 	ii. Compliance Method: [Reference APC-2009/0089(A1)] Compliance with "Facility-wide Emission Limit for Nitrogen Oxides (NOx)" in Part 1 Condition 3 - Table 1.j shall be based on determination and use of a NOx emission factor based upon results of the most recent performance testing conducted in accordance with a protocol approved by DNREC, or performed in accordance with applicable performance testing methods established and published by EPA and appropriate for measuring NOx emissions from the relevant source or any other	 v. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vi. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	method proposed by the Owner/Operator and approved by the Department. [Reference: 7 DE Admin Code 1130 Section 6.3.1 dated 12/11/00]	
	 iii. Monitoring/Testing: A. Comply with "Facility Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. [Reference 7 DE Admin. Code 1130 Section 6.1.3.1 dated 12/11/2000] 	
	 iv.Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Facility Emission Limit for Nitrogen Oxides (NOx)" in Condition 3 - Table 1.j. [Reference 7 DE Admin Code 1130 Sections 6.1.3.2 dated 12/11/00]. 	
 5. Carbon Monoxide (CO): i. Emission Standards: [Reference APC-2009/0089(A1)] A. CO emissions from the package boilers shall not exceed 59.6 TPY. B. CO emissions shall not exceed 0.034 lb/MMBtu from each package boiler. 	iii. Compliance Method: [Reference APC-2009/0089(A1)] A. Compliance with the CO Emission Standards shall be based on annual stack testing of each package boiler.	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.i.	iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 10 stack test for CO. The Owner/Operator may petition the Department to decrease the frequency of CO	vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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	performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. [Reference APC-2009/0089(A1)] v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.iv.	
6. Volatile Organic Compounds (VOC):		
 i. Emission Standards: [Reference APC-2009/0089(A1)] A. VOC emissions from the package boilers shall not exceed 2.5 TPY. B. VOC emissions shall not exceed 0.0014 lb/MMBtu from each package boiler. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.i. 	iii. Compliance Method: [Reference APC-2009/0089(A1)] A. Compliance with the VOC Emission Standards shall be shall be demonstrated by firing only natural gas or by using annual stack test based emission factors obtained while firing refinery fuel gas and refinery fuel gas flow rates for the package boilers. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 25A stack test for VOC. The	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

Permit: <u>AQM-003/00016 - Part 3 (Renewal 2)(Revision 1)</u> – Draft/Proposed **Delaware City Refining Company**

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Owner/Operator may petition the Department to decrease the frequency of VOC performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. [Reference APC-2009/0089(A1)] v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.iv.	
 7. Sulfuric Acid Mist (H₂SO₄): i. Emission Standards: [Reference APC-2009/0089(A1)] A. H₂SO₄ emissions from the package boilers shall not exceed 6.4 TPY. ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.i. 	 iii. Compliance Method: A. Compliance with the H₂SO₄ Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: A. The Owner/Operator shall conduct annually an EPA Reference Method 8 stack test for H₂SO₄. The 	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Owner/Operator may petition the Department to decrease the frequency of H ₂ SO ₄ performance tests based on the results of any performance testing. Annual stack testing shall not be required for the package boilers provided the package boilers only fire natural gas. Stack testing must be conducted within 180 days of the date in which the Owner/Operator first fires refinery fuel gas in any package boiler. [Reference APC-2009/0089(A1)]	
	v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.iv.	
8. Ammonia (NH ₃): i. Emission Standards: [Reference APC-2009/0089(A1)] A. NH ₃ emissions from the package boilers shall not exceed 10 ppmvd @ 3% O ₂ and 11.9 TPY.	iii. Compliance Method: A. Compliance with the NH₃ Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements.	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]
ii. Operational Limitations: Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.i.	iv. Monitoring/Testing: A. The Owner/Operator shall obtain weekly grab samples from a location downstream of the SCR using a Department approved method. The	vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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	Owner/Operator may request the Department for approval of less frequent monitoring if 24 consecutive sampling events indicate the ammonia slip to be less than 5 ppmvd @ 3 % O ₂ . [Reference APC-2009/0089(A1)] v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Comply with "Conditions Applicable to Multiple Pollutants" in Part 3 Condition 3 - Table 1.g.1.iv.	
 9. Visible Emissions: i. Emission Standards: [Reference APC-2009/0089(A1)] A. None of the package boilers shall emit visible air contaminants exceeding 20% opacity for an aggregate of more than 3 minutes in any 1 hour period, or more than 15 minutes in any 24 hour period. ii. Operational Limitations:	 iii. Compliance Method: A. Compliance with the Emission Standard shall be based on the Monitoring/Testing and Recordkeeping requirements. iv. Monitoring/Testing: [Reference APC-2009/0089(A1)] A. The Owner/Operator shall conduct daily qualitative stack observations to determine the presence of any visible emissions when the unit is in operation. 1. If visible emissions are observed, the Owner/Operator shall take corrective actions and/or conduct a visible observation in accordance with 	vi. Reporting: Nothing in addition to the requirements of Conditions 2(a), 2(b)(9), 2(f)(3), 3(b)(1)(ii), and 3(c)(2) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00] vii. Certification: That required by Condition 3(c)(3) of this permit. [Reference: 7 DE Admin Code 1130 Sections 6.1.3.2.3 and 6.2.1 dated 12/11/00]

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<u>Condition 3 – Table 1 (Specific Requirements)</u>

Emission Limitations, Emission Standards, Operational Limitations, and Operational Standards	Compliance Determination Methodology (Monitoring, Testing, QA/QC Procedures, and Record Keeping)	Reporting and Compliance Certification
	Paragraph (B) below. 2. If no visible emissions are observed, no further action is required. [Reference: 7 DE Admin. Code 1130, Section 6.1.3 dated 12/11/00] B. If required under paragraph A, above, the Owner/Operator shall in accordance with Subsection 1.5(c) of Regulation No. 20 conduct visual observations at fifteen-second intervals for a period of not less than one hour except that the observations may be discontinued whenever a violation of the standard is recorded. The additional procedures, qualification and testing to be used for visually determining the opacity shall be those specified in Section 2 & 3 (except for Section 2.5 and the second sentence of Section 2.4) of Reference Method 9 set forth in Appendix A, 40 CFR, Part 60, revised July 1, 1982. [Reference: 7 DE Admin. Code 1120, Section 1.5.3 dated 12/7/88] v. Recordkeeping: In addition to the requirements of Conditions 3(b)(1)(ii) and 3(b)(2) of this permit, the Company shall: A. Maintain a record of the daily qualitative stack observations.	

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Condition 3 – Table 1 (Specific Requirements)

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Ravi Rangan, P.E. Lindsay Rennie, EIT